AIRS Project
AIRS Science Team Meeting

AIRS Browse Products

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Outline

- Background
- Introduction
- Status
- Browse Product Samples from the Golden Day (12-14-2000)
- Aid to Ordering Data at the DAAC
- Readers and Tools

Background

Level 1B Browse Packages

- AIRS Radiance
  - 5 Level 1B AIRS images for selected AIRS channels
    - Channels: 709.7, 1040.14, 1109.49, 1304.23, 1310.06
- AMSU Brightness Temperature
  - 8 Level 1B AMSU images for selected AMSU channels (1-7, 15)
- HSB Brightness Temperature
  - 4 Level 1B HSB images for HSB channels (Ch 1 never used)

Level 2 Browse Packages

- Level 2 Retrievals
  - 8 Level 2 images for ascending nodes
  - 6 Level 2 images for descending nodes (no visible)
- Level 2 Cloud Cleared Radiance
  - Same as AIRS radiance

AIRS Browse Products

- Qualitative
  - Subset of larger AIRS data sets
  - AIRS browse images provide a qualitative, first order view of AIRS data on a twice daily, global scale.
  - Raster images
    - Binned and averaged 1º x 1º resolution
    - Pixel values bet. 0 – 255
- Quick-look
  - Compare with granule map, select granules for analysis
  - Show data drop-outs
- Aid to ordering
  - Browse available through the EDG.
  - User chooses granules for ordering based on region of interest identified by the browse product.

Status

Level 1B and Level 2 AIRS Browse Products

- DAAC
    - Generated at the DAAC
    - Final EDG implementation currently being tested (3.4b6)
        - <u>Minor</u> discrepancies, DAAC acting on them
- JPL TDS
    - Generated during daily processing.
    - Level 1B Browse products
        - currently used as a resource for daily status meetings.
            - » Coverage
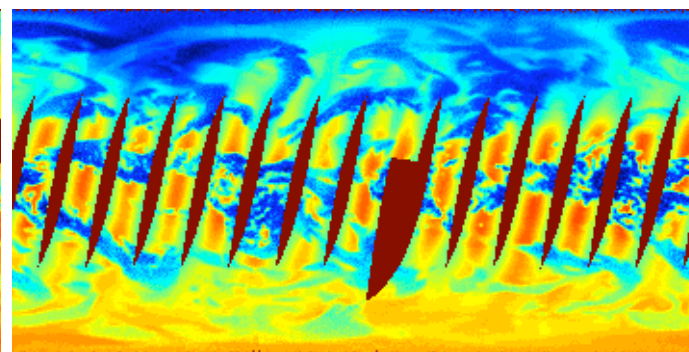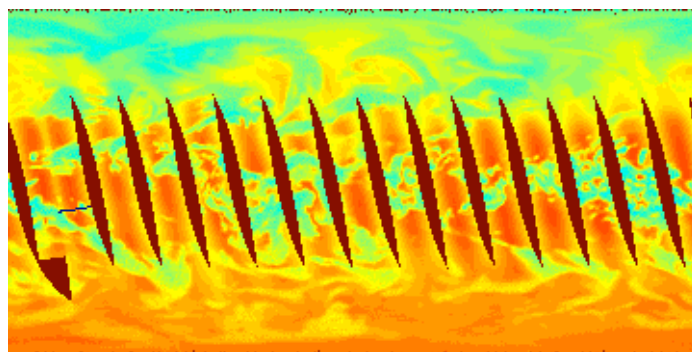   - » Shape

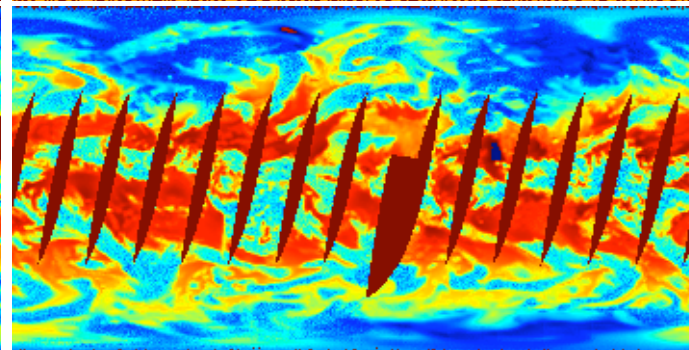# AIRS Golden Day Sample Browse
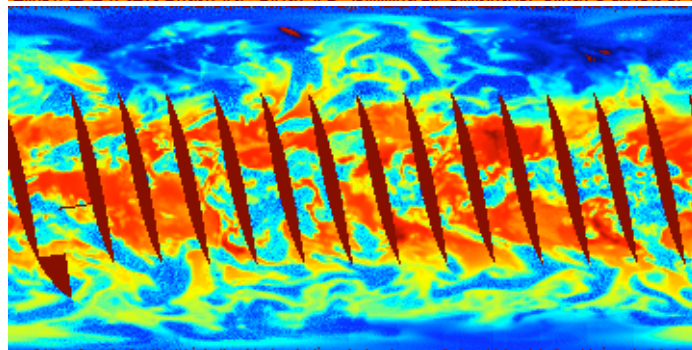
AIRS Level 1B Radiance Browse Products – 12-14-2000

•Ascending   •Descending

AIRS T200
(709.74)

AIRS Window
(1109.49
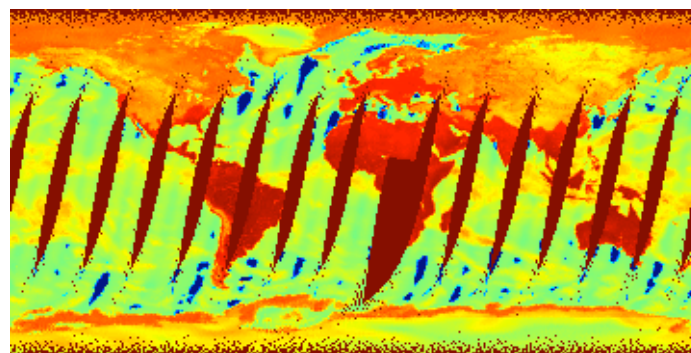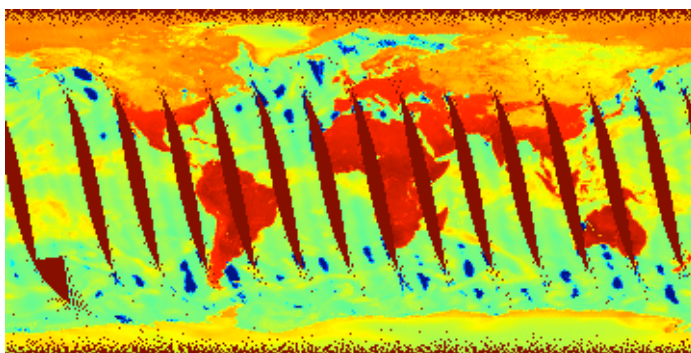
AIRS Golden Day Sample Browse

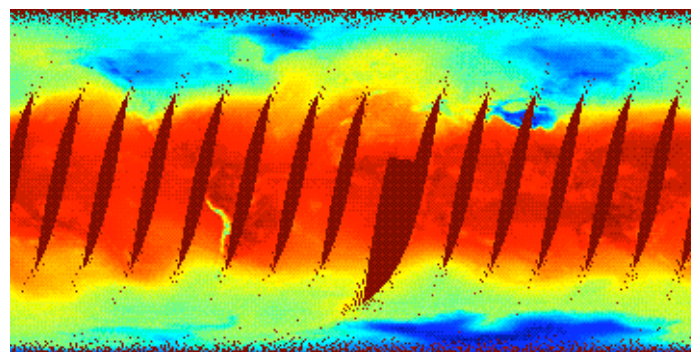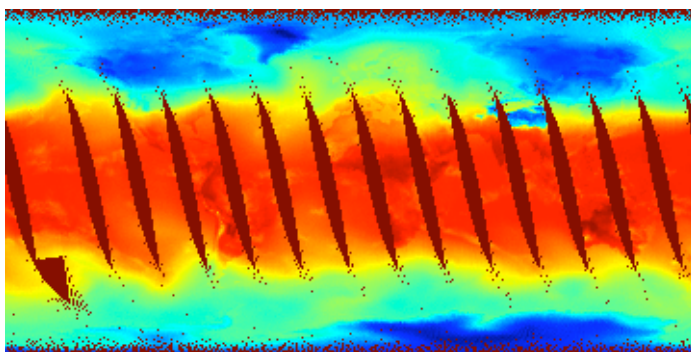## AMSU Level 1B Tb Browse Products – 12-14-2000

Ascending

Descending

Ch. 2
31.4 GHz

Ch. 5
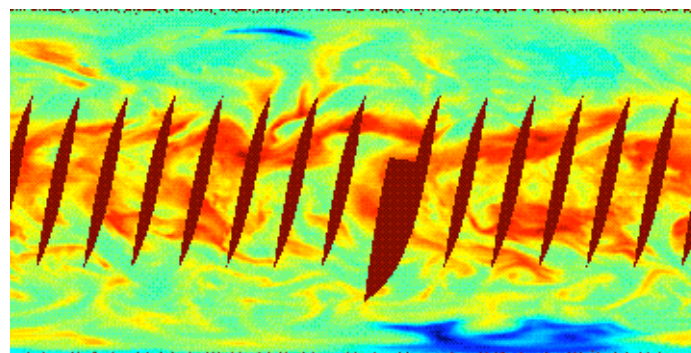53.596 +/- 1.15 GHz
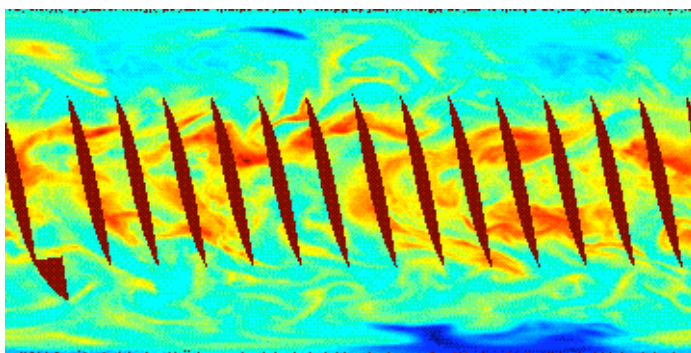
AIRS Golden Day Sample Browse
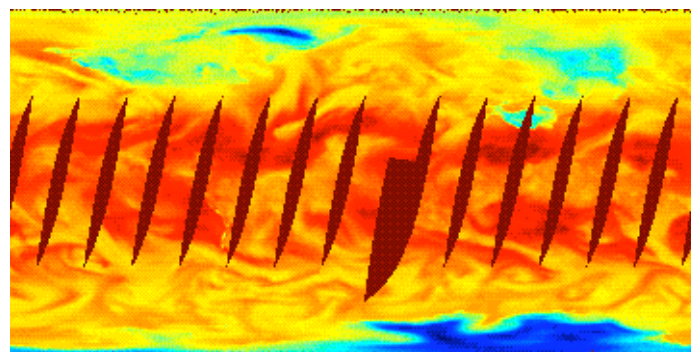
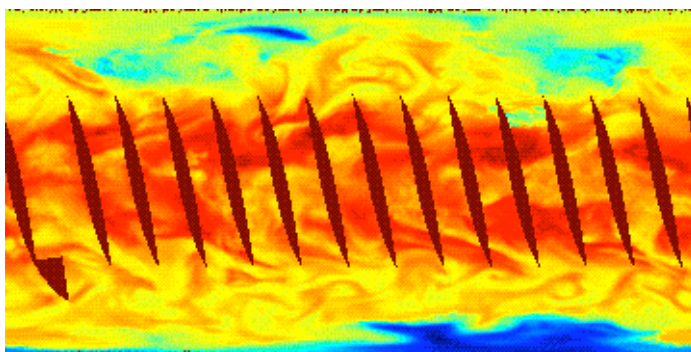## HSB Level 1B Tb Browse Products – 12-14-2000

Ascending

Descending

Ch. 2
f0 +/- 1.0 GHz

Ch. 3
f0 +/- 3.0 GHz

(f0 = 183.31 GHz)
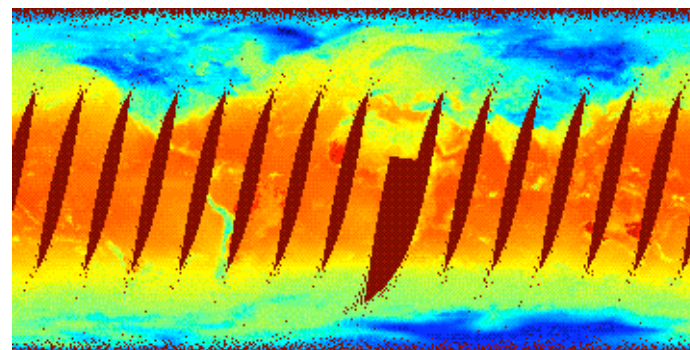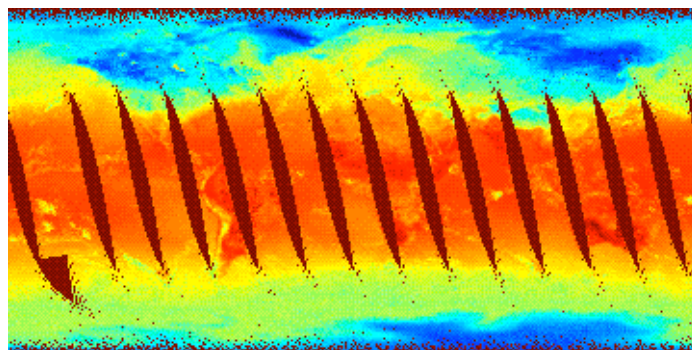
AIRS Golden Day Sample Browse

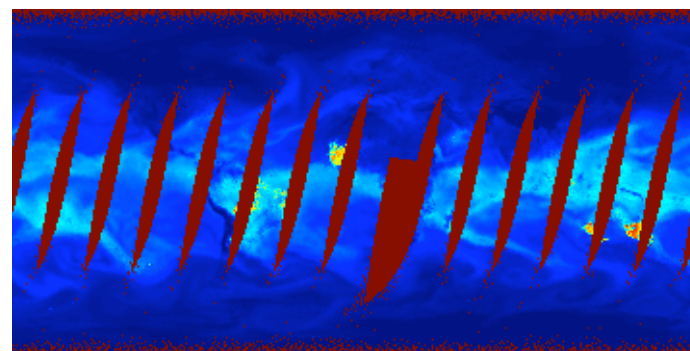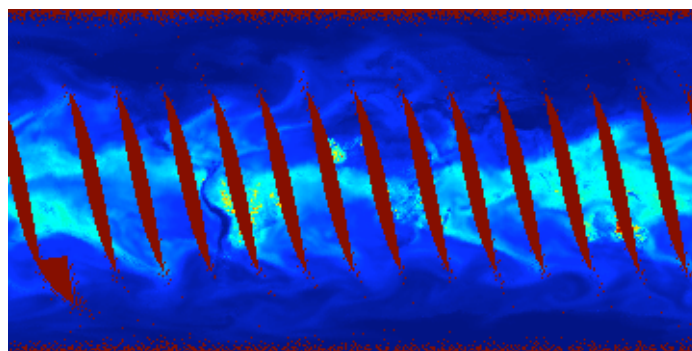## AIRS Level 2 Retrievals Browse Products – 12-14-2000

Ascending

Descending

SST

Total Water Vapor

(f0 = 183.31 GHz)

Aid to Ordering Data from the DAAC

AIRS Browse Search

- Find Summary Browse images based on user input data/time

- Use Summary Browse image as base map for choosing geographic region to search for individual granules

- User Scenario
    - Log on to EDG
    - Enter as Guest or registered user
    - Browse Search
        - Returns Browse granules
    - Display Browse granule of interest
    - Select a rectangular Region of Interest
    - EDG builds query based on Date/Time of browse image and Lat/Lon coordinates of ROI
    - Searches database
    - Returns granules based on browse query

Readers and Tools

- eosview
  - Shareware available from ESDIS website
    - http://hdfeos.gsfc.nasa.gov/hdfeos/SoftwareDist.html
    - ECS anonymous ftp site:
      - » ftp edhs1.gsfc.nasa.gov
  - Useful for viewing all HDF-EOS data types.
  - Limited plotting/imaging capabilities
  - Limited architectures
  - IDL based
- HDF Java Viewer
  - Shareware available from NCSA
    - http://hdf.ncsa.uiuc.edu/java-hdf-html/jhv/index.html
  - Vanilla HDF
  - Useful for viewing all attributes of an AIRS Browse package
  - Transportable across architectures
- IDL
  - HDF_DFR8_GETIMAGE, AIRS_Browse_File, imageN
- Noesys
- Matlab